

Remarks/Arguments:

With this Response, claim 1 is amended to incorporate the feature that the structural skins are comprised of a material which is different than the core material, and specifically that it be made from a material selected from the group consisting of thermosetting polymer, thermoplastic polymer reinforced with glass fibers, metallic fibers, inorganic fibers, or carbon fibers; thermosetting polymer reinforced with glass fibers, metallic fibers, inorganic fibers, or carbon fibers; wood; fiberglass; and metal. Support for the amendment is found in the specification, for example, at page 7, lines 16-20, and page 28, lines 2-7. No new matter has been added. Claims 5 and 6 have been cancelled.

The Office Action rejected claims 1-3 and 5-8 under 35 U.S.C. §103(a) as unpatentable over Mason et al. (U.S. Patent No. 6,197,233) in view of Grinshpun et al. (U.S. Patent No. 6,844,055) as evidenced by Chen et al. (U.S. Patent No. 6,165,308). Claim 4 stands rejected as obvious in view of the above references and Tusim et al. (U.S. Patent No. 6,213,540).

The Office Action also rejected claims 1-3 and 5-8 under 35 U.S.C. §103(a) as unpatentable over Park et al. (U.S. Patent No. 5,527,573) in view of Grinshpun et al. (U.S. Patent No. 6,844,055) as evidenced by Chen et al. (U.S. Patent No. 6,165,308). Claim 4 stands rejected as obvious in view of the above references and Tusim et al. (U.S. Patent No. 6,213,540).

I. Applicants' Response

A. There Is No Motivation To Combine Mason, Grinshpun, and Chen

The Office Action states that Mason teaches a foam product having a plurality of coalesced, extruded foam strands of polystyrene with no interstrand voids. The Office Action acknowledges that Mason fails to teach a foam product of polyester, but notes that Grinshpun teaches a foam structure comprising strands made from a mixture of polystyrene and polyethylene terephthalate. The Office Action then asserts that it would have been obvious "to use polyester in combination with polystyrene in the foam product because such is the intended use of the product and Grinshpun provides the necessary details to practice the invention of Mason."

The applicants submit that the Office Action has failed to set forth any motivation to substitute the polystyrene and PET resin of Grinshpun for the polystyrene of Mason. Applicants submit that the Office Action has therefore failed to set forth a *prima facie* case for obviousness.

MPEP §2143 provides that to establish a *prima facie* case of obviousness, three basic criteria must be met: 1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; 2) there must be a reasonable expectation of success; and 3) the prior art reference (or references when combined) must teach or suggest all the claim limitations. To support the motivation to combine or modify the references, the Examiner must present a convincing line of reasoning supporting the rejection. *See Ex parte Clapp*, 227 USPQ 972 (Bd. Pat. App. & Inter. 1985). The mere fact that references can be combined or modified is not sufficient motivation to reject the claims as obvious unless the prior art suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

Here, the applicants find no teaching or suggestion in Mason or Grinshpun that one can always simply substitute a combination of polyester and polystyrene into a process using only polystyrene, let alone a teaching or suggestion that it is desirable to do so. Mason is directed to producing multistrand or coalesced foam with alkene aromatic compounds, particularly styrene compounds. No mention of polyester is made in Mason. Grinshpun does mention that styrene compounds are suitable alternative compounds for use in Grinshpun. Applicants submit, however, that to take this teaching and conclude that polyester compounds can always be freely added to styrene compounds is an untenably overbroad reading of Grinshpun. If the Examiner maintains such a conclusion, the applicants request the Examiner take Official Notice that polyester compounds can be freely substituted for styrene compounds in all foamable processes. Absent this, Applicants submit that the Examiner has failed to set forth a *prima facie* case for obviousness by not providing proper motivation for one skilled in the art to substitute the polyester of Grinshpun for the polystyrene of Mason. Applicants respectfully request reconsideration of this rejection.

B. There Is No Motivation To Combine Park, Grinshpun, and Chen

The Office Action states that Park teaches a foam product teaching a plurality of coalesced, extruded foam strands of polypropylene with no interstrand voids. The Office Action acknowledges that Park fails to teach a foam product of polyester, but cites Grinshpun for an alleged teaching of a foam structure comprising strands made from polyethylene terephthalate. The Office Action then provides that it would be obvious "to use polyester in combination with

polypropylene in the foam product because such is the intended use of the product and Grinshpun provides the necessary details to practice the invention of Park."


As a preliminary matter, it is noted that none of the cited references teach strands comprising a mixture of polypropylene and polyester. In any event, the applicants submit that regardless of the combination of materials cited by the Office Action, the Office Action has failed to set forth any motivation to substitute the polyester of Grinshpun for the polypropylene of Park. The applicants submit that the Office Action has therefore failed to set forth a *prima facie* case for obviousness.

More specifically, the applicants find no teaching or suggestion in Park that a polyester can be substituted for the polypropylene used in the invention of Park. In fact, Park is directed to the benefits of using a polypropylene foam. No mention is made of any other foamable material. Applicants note that Grinshpun discloses that polypropylene is a suitable alternative foamable material for use in the invention of Grinshpun. Applicants submit that this teaching does not support the assumption contained in the Examiner's supplied motivation, that one can always simply substitute polyester for polypropylene as a suitable foamable material in any foamable process. This disclosure in Grinshpun that polypropylene is a suitable alternative foamable material can only be read to provide a teaching that polypropylene is a suitable alternative material in the invention of Grinshpun, and not that a polyester resin can be freely substituted for a polypropylene resin in all applications. If the Examiner maintains an assertion that polyester can be always freely substituted for polypropylene because they are both thermoplastic foamable materials, the applicants request the Examiner take Official Notice of that fact.

II. Conclusion

The Office Action has failed to provide sufficient motivation to modify the cited references other than an unsupported statement that "such is the intended use of the product." It is further emphasized that none of the references teach, alone or in combination, the specific skin materials in combination with the specific core material claimed. The applicants submit that the claims are in a condition for allowance and respectfully request the Examiner's early notification to that effect.

Respectfully submitted,



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